

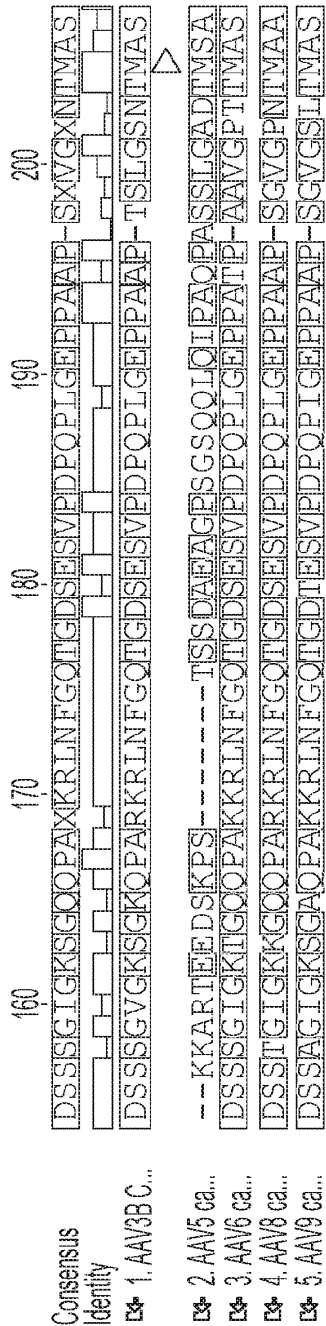


FIG. 1A

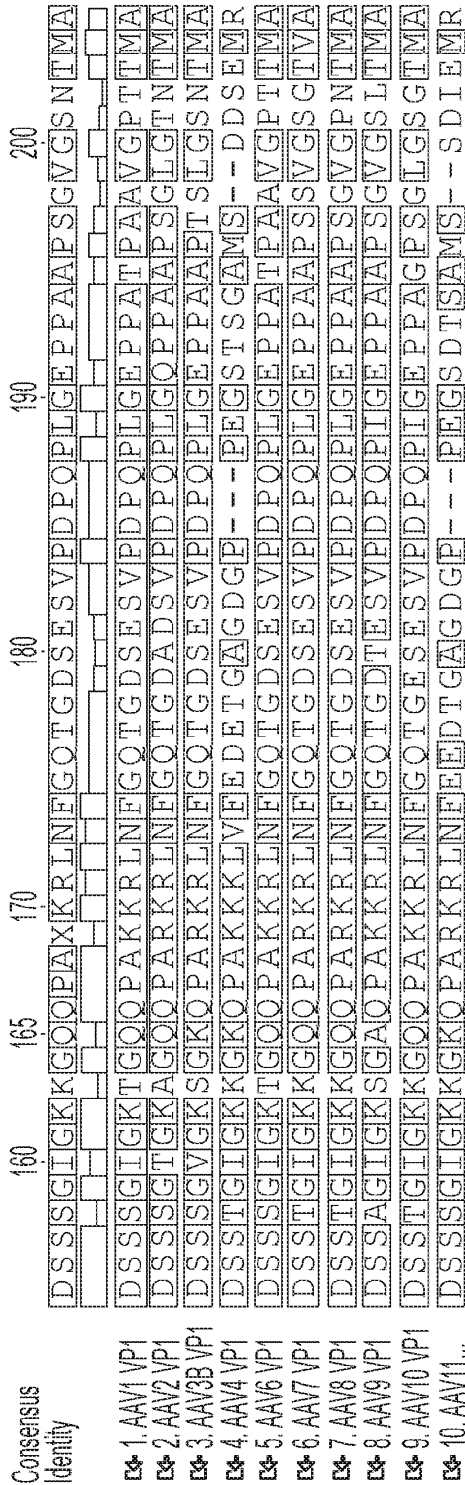


FIG. 1B

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		Position													
Serotype	158	160	163	165	169	171	173	175	176	177	178	179	180	181	182
1	S158 T/A	H60 T/V	T163 A/S/K	Q165 K/A	K169R								S180 A/T		
4	T158S J/A	H60 T/V	K163 A/S	Q165 Q/A	K169R	K171R	V173N	E175G	D176 Q/E	E177T	T178G	G179 D/E	A180 S/T	G181 D/E	D182S
6	S158 T/A	H60T N	T163 A/S/K	Q165 K/A	K169R								S180 A/T		
7	T158 S/A	H60T N	K163 A/S	Q165 K/A	R169K								S180 A/T		
8	T158 S/A	H60T N	K163 A/S	Q165 K/A	R169K								S180 A/T		
11	S158 T/A	H60T N	K163 A/S	K165 Q/A	R169K			E175G	E176Q	D177T	T178G	G179 D/E	A180 S/T	G181 D/E	D182S
		Position													
Serotype	183	189	191	192	193	194	195	196	197	198	199	200	201	202	203
1		L189 E/I					T195A		A197 S/T	A198S/ G	V199L		P201T/ S	T202 NIL	
4	G183V	E189 L/I	S191 Q/E	T192P	S193P	G194A		M196P	S197T			D200G	D201T/ S	S202 NIL	E203T
6		L189 E/I					T195A		A197 S/T	A198S/ G	V199L		P201T/ S	T202N IL	
7		L189 E/I							S197T	S198G	V199L			G202 NIL	
8		L189 E/I							S197T	G198S	V199L		P201T/ S	N202L	
11	G183V	E189 L/I	S191 Q/E	D192P	T193P	S194A		M196P	S197T			S200G	D201 T/S	I202 NIL	E203T

FIG. 1C

Helper	VP1	VP2	VP3
Standard helper	1	2	60
AAV9 transplant	1	1.5	40

FIG. 2B

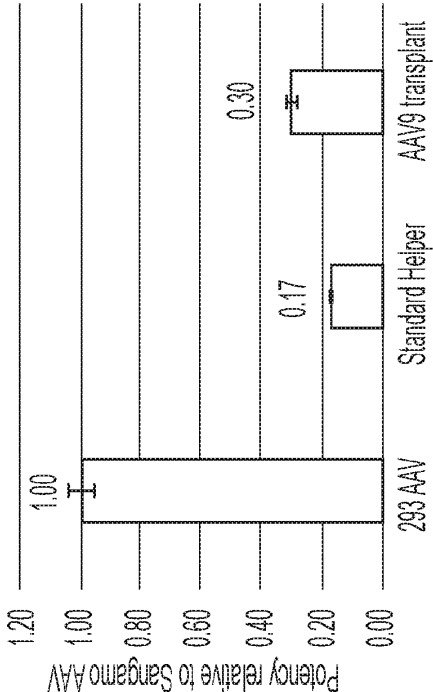


FIG. 2C

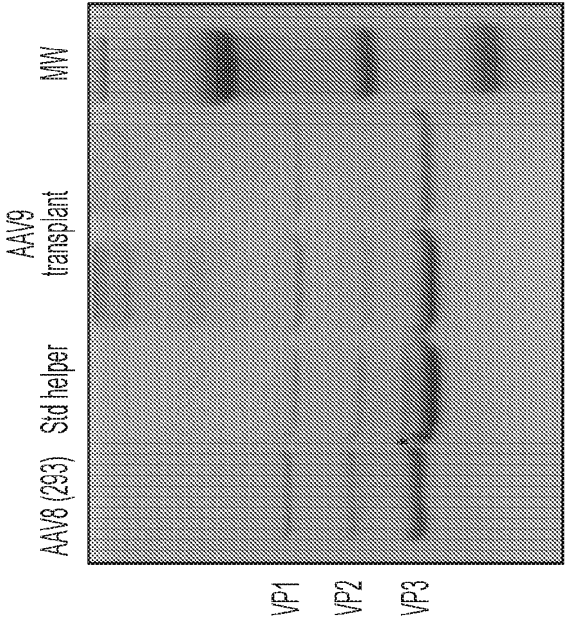


FIG. 2A

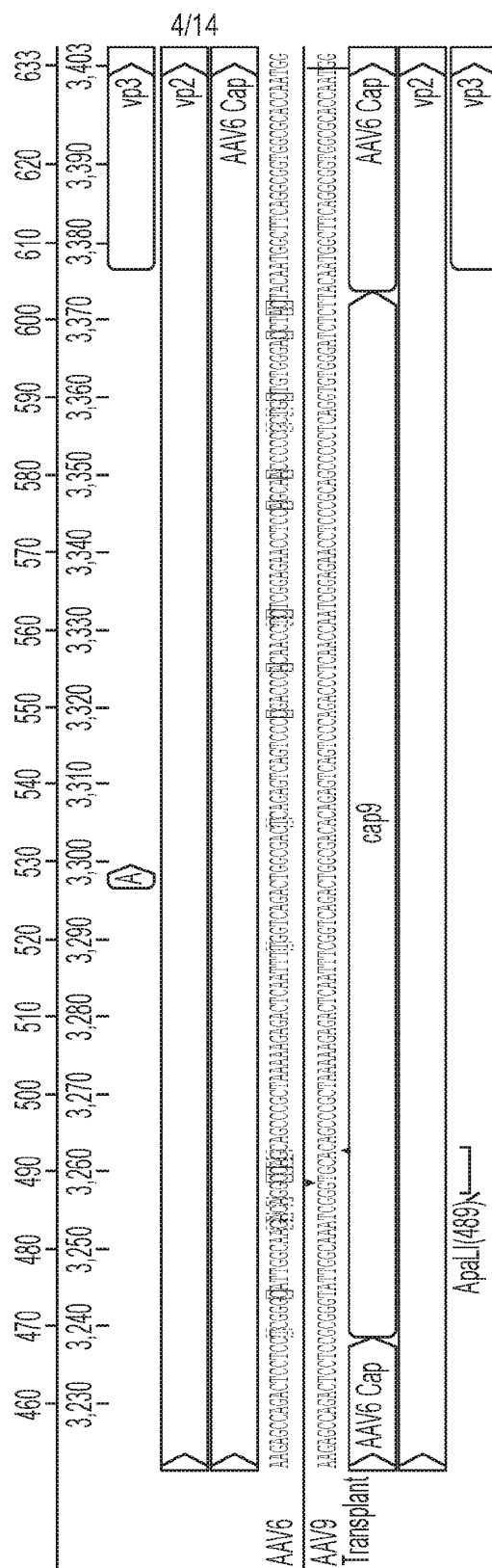


FIG. 2D

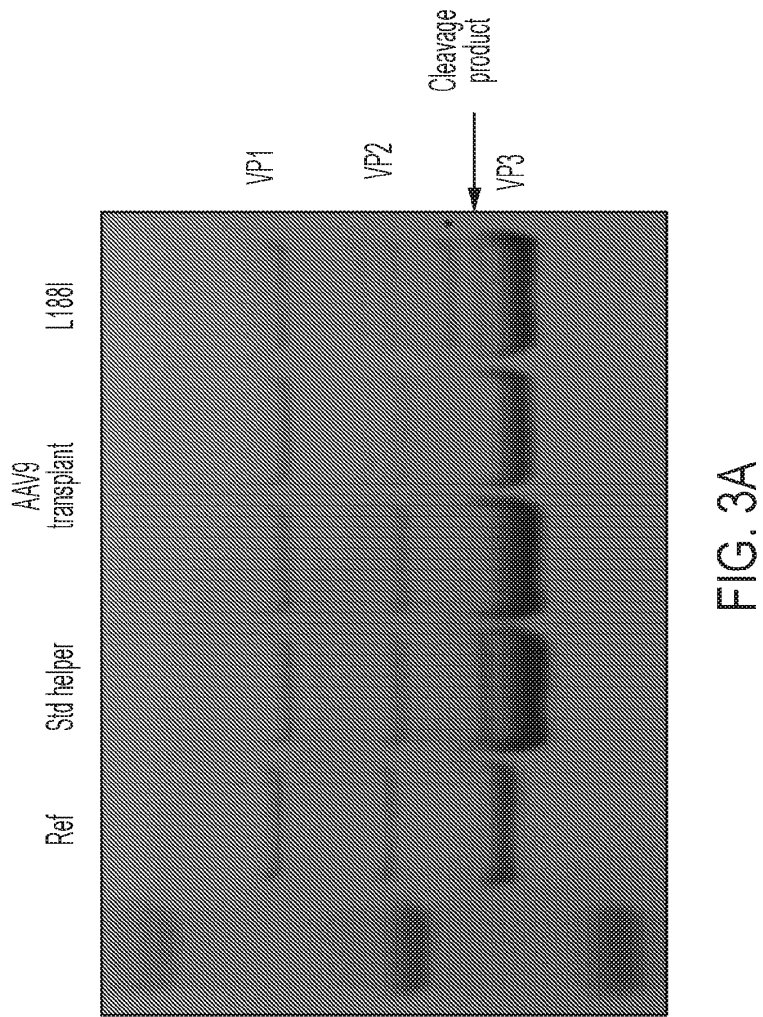


FIG. 3A

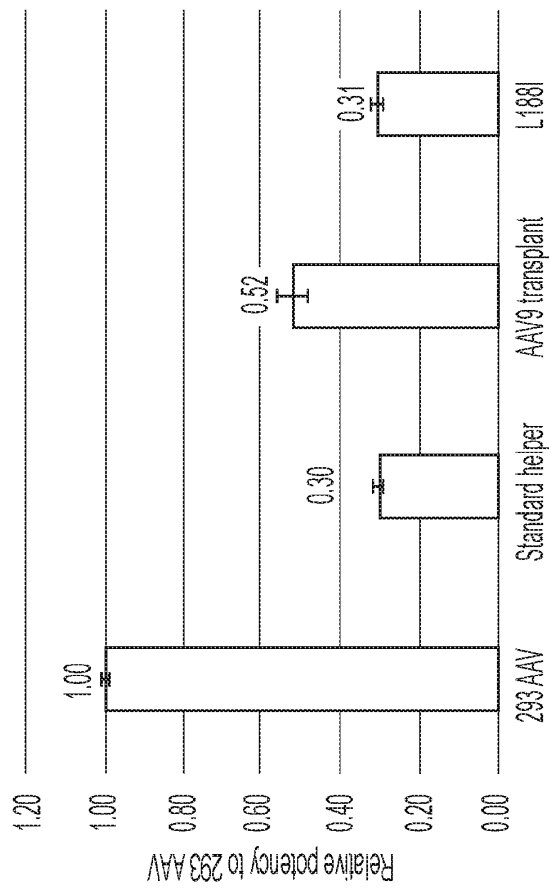


FIG. 3B

AAV6	150	160	170	180	190	200	
	PQEPDSSGIGK	TGQQPAKKRLNFGQ	TGDS	ESVPDPQ	PLGEPPATPAA	VGPTTMSG	AAV6 Cap
AAV9 Transplant	PQEPDSSAGIGK	SGAQPAPAKKRLNFGQ	TGDTESVPDPQ	PIGEPPAA	PSGVGSLTMSG		
	AAV6 Cap		cap9		AAV6 Cap		
Variant 1	PQEPDSSGIGK	TGQQPAKKRLNFGQ	TGDTESVPDPQ	PIGEPPAA	PSGVGSLTMSG		
					AAV6 Cap		
Variant 2	PQEPDSSGIGK	TGQQPAKKRLNFGQ	TGDTESVPDPQ	PIGEPPAA	PSGVGPTTMSG		
					AAV6 Cap		
Variant 3	PQEPDSSGIGK	TGQQPAKKRLNFGQ	TGDS	ESVPDPQ	PLGEPPAA	PSGVGSLTMSG	
					AAV6 Cap		
Variant 4	PQEPDSSAGIGK	SGAQPAPAKKRLNFGQ	TGDS	ESVPDPQ	PLGEPPATPAA	VGPTTMSG	AAV6 Cap

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FIG. 4A

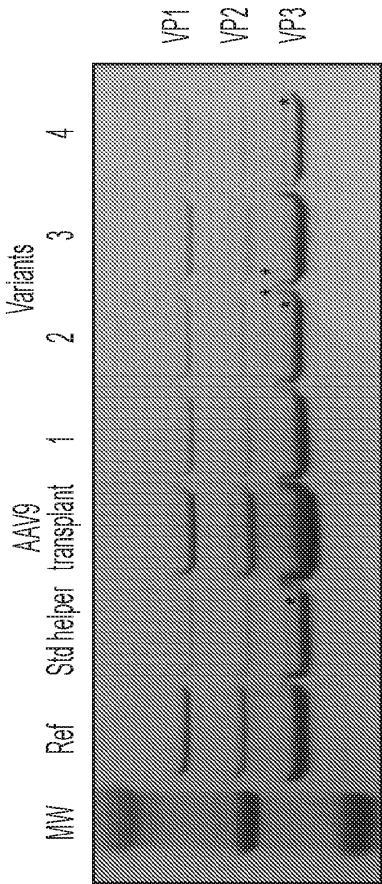


FIG. 4B

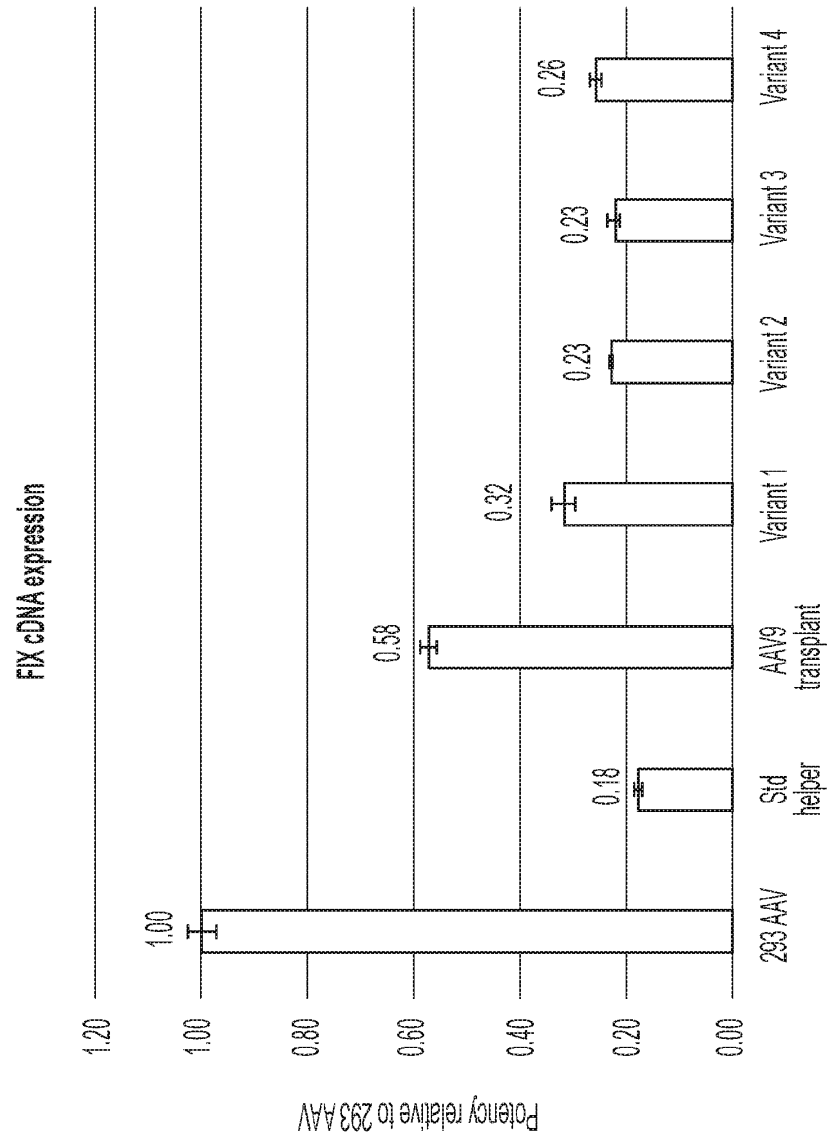


FIG. 4C

3260	3270	3280	3290	3300	3310	3320	3330	3340	3350	3360	3370	3380	3386	3390	3400
AAV6															
Translation															
G G C C A C G C C C C T A A A A A C A G A C T C A A T T T G G T C A G A C T G G C A C T C A G A G T C C C G A C C C A C C A C C A C C T C T C G A G A G A C C T C C C G C A G C C C C T C A G C T G T G G A C C T A C T A C A A T G C C T T A G C C G T G C G C A C C A T G C C A G															
G Q Q P A K K R L N F G Q L M A T Q S Q S P T H N L S E N L Q Q P P L L L W D L L Q W L G G A P M A AAV6 Cap>>															
AAV9 transplacental															
Translation															
G G C C A C G C C C C T A A A A A C A G A C T C A A T T T G G T C A G A C T G G C A C T C A G A G T C C C G A C C C A C C A C C T C T C G A G A G A C C T C C C G C A G C C C C T C A G C T G T G G A C C T A C T A C A A T G C C T T A G C C G T G C G C A C C A T G C C A G															
G H Q P A K K R L N F G Q L M A T Q S Q S P T H N L S E N L Q Q P P Q V W D L L Q W L G G A P M A AAV6 Cap>>															
Variant 1															
Translation															
G G C C A C G C C C C T A A A A A C A G A C T C A A T T T G G T C A G A C T G G C A C T C A G A G T C C C G A C C C A C C A C C T C T C G A G A G A C C T C C C G C A G C C C C T C A G C T G T G G A C C T A C T A C A A T G C C T T A G C C G T G C G C A C C A T G C C A G															
G Q Q P A K K R L N F G Q L M A T Q S Q S P T H N L S E N L Q Q P P Q V W D L L Q W L G G A P M A AAV6 Cap>>															
Variant 2															
Translation															
G G C C A C G C C C C T A A A A A C A G A C T C A A T T T G G T C A G A C T G G C A C T C A G A G T C C C G A C C C A C C A C C T C T C G A G A G A C C T C C C G C A G C C C C T C A G C T G T G G A C C T A C T A C A A T G C C T T A G C C G T G C G C A C C A T G C C A G															
G Q Q P A K K R L N F G Q L M A T Q S Q S P T H N L S E N L Q Q P P Q V W D L L Q W L G G A P M A AAV6 Cap>>															
Variant 3															
Translation															
G G C C A C G C C C C T A A A A A C A G A C T C A A T T T G G T C A G A C T G G C A C T C A G A G T C C C G A C C C A C C A C C T C T C G A G A G A C C T C C C G C A G C C C C T C A G C T G T G G A C C T A C T A C A A T G C C T T A G C C G T G C G C A C C A T G C C A G															
G Q Q P A K K R L N F G Q L M A T Q S Q S P T H N L S E N L Q Q P P Q V W D L L Q W L G G A P M A AAV6 Cap>>															
Variant 4															
Translation															
G G C C A C G C C C C T A A A A A C A G A C T C A A T T T G G T C A G A C T G G C A C T C A G A G T C C C G A C C C A C C A C C T C T C G A G A G A C C T C C C G C A G C C C C T C A G C T G T G G A C C T A C T A C A A T G C C T T A G C C G T G C G C A C C A T G C C A G															
G A I Q P A K K R L N F G Q L M A T Q S Q S P T H N L S E N L Q Q P P L L L W D L L Q W L G G A P M A AAV6 Cap>>															

FIG. 4D

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Helper	VP1	VP2	VP3
Standard helper	1	1.5	33
AAV2 PLA2 transplant	1	1.9	31

FIG. 5A

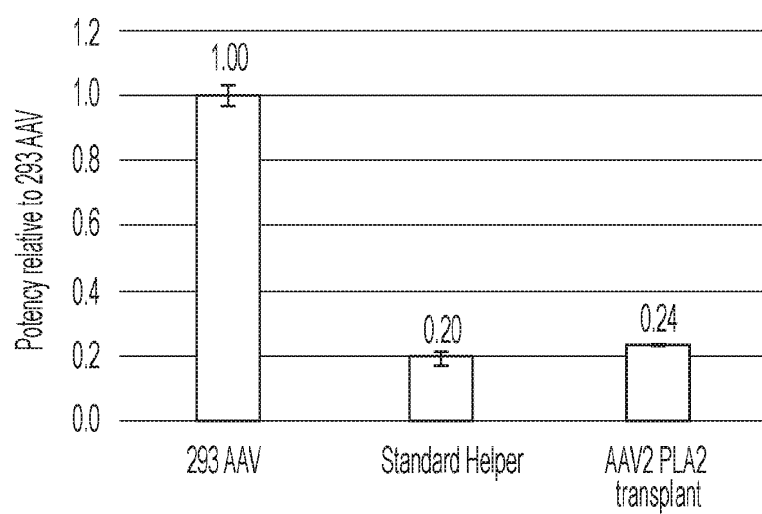


FIG. 5B

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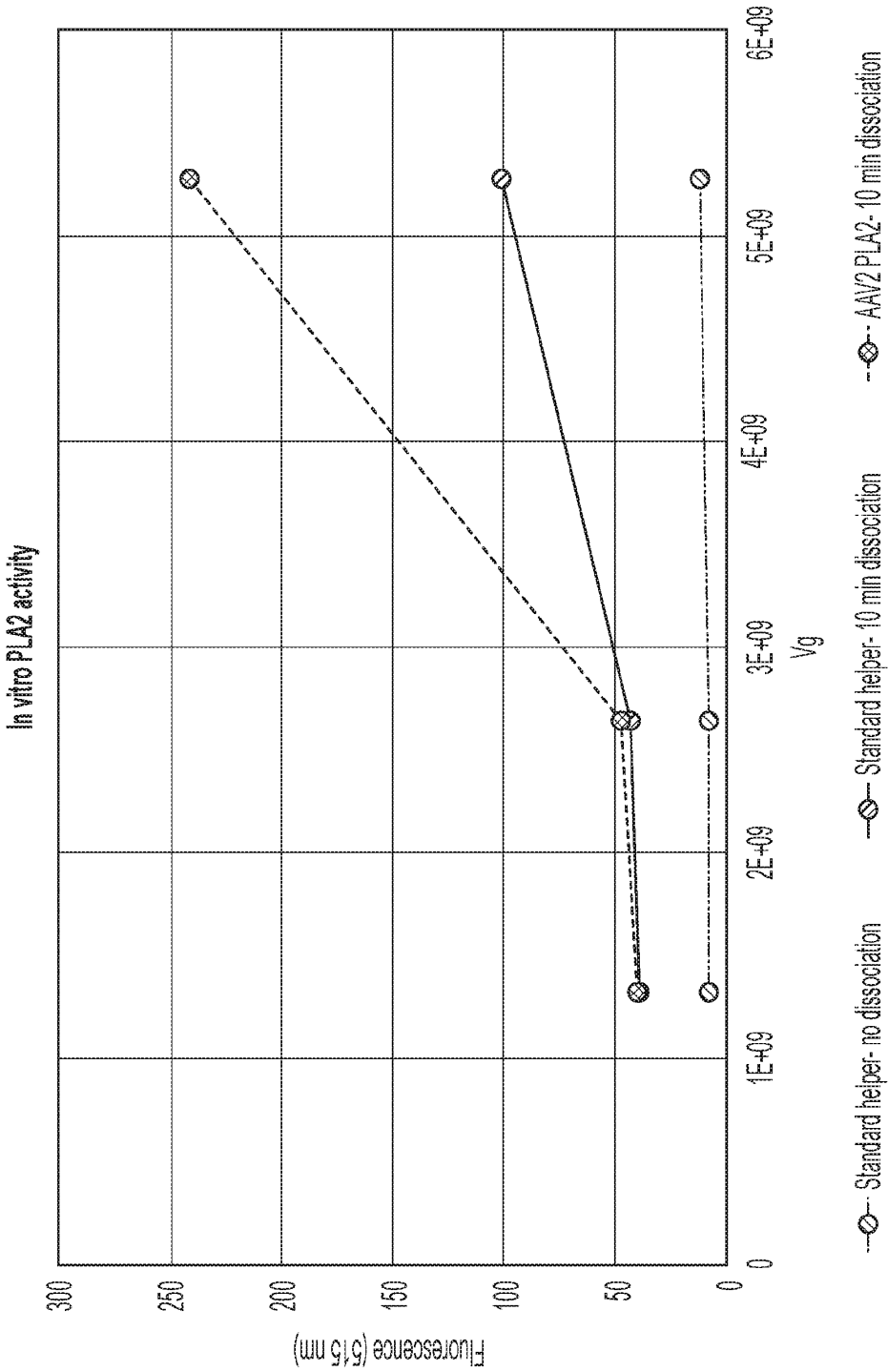


FIG. 6

Consensus	1	10	20	30																										
Identity	M	A	T	Q	S	Q	S	P	T	L	N	S	E	N	L	Q	Q	P	P	L	V	W	D	L	L	Q	W	L	Q	
1. AAV1 AAP	M	A	T	Q	S	Q	S	P	I	H	N	S	E	N	L	Q	Q	P	P	L	L	W	D	L	L	Q	W	L	Q	
2. AAV2 AAP	M	E	T	Q	T	Q	Y	L	T	P	S	L	S	D	S	H	Q	Q	P	P	L	V	W	E	L	I	R	W	L	Q
3. AAV3B AAP	M	A	T	Q	S	Q	S	Q	T	L	N	S	E	N	H	Q	Q	P	P	Q	V	W	D	L	I	Q	W	L	Q	
4. AAV4 AAP	M	E	Q	A	T	D	P	-	-	-	L	R	D	Q	L	P	E	P	-	-	C	L	M	T	V	R	C	V	Q	
5. AAV5 AAP	M	A	T	Q	S	Q	S	P	T	H	N	S	E	N	L	Q	Q	P	P	L	L	W	D	L	L	Q	W	L	Q	
6. AAV7 AAP	M	A	T	Q	S	Q	S	P	T	L	N	S	E	N	L	Q	Q	P	R	L	V	W	D	L	V	Q	W	L	Q	
7. AAV8 AAP	M	A	T	Q	S	Q	F	Q	T	L	N	S	E	N	L	Q	Q	R	P	L	V	W	D	L	I	Q	W	L	Q	
8. AAV9 AAP	M	A	T	Q	S	Q	S	Q	T	L	N	S	E	N	L	P	Q	P	P	Q	V	W	D	L	L	Q	W	L	Q	
9. AAV10 AAP	M	A	S	Q	S	Q	S	P	T	L	N	S	E	N	H	Q	Q	A	P	L	V	W	D	L	V	Q	W	L	Q	
10. AAV11 AAP	M	E	P	E	T	D	P	-	-	-	L	K	D	Q	I	P	A	P	-	-	C	L	Q	T	L	K	C	V	Q	

FIG. 7A

Position														
Serotype	2	3	4	5	6	7	8	9	10	11	12	13	14	
1							P8Q	I9T	H10L		L12Q			
2	E2A			T5S		Y7S	L8Q		P10L	S11N	L12Q		D14E	
4	E2A	Q3T	A4Q	T5S	D6Q	P7S					L12Q	R13S	D14E	
6							P8Q		H10L		L12Q			
7							P8Q				L12Q			
8						F7S					L12Q			
10		S3T					P8Q				Q12L			
11	E2A	P3T	E4Q	T5S	D6Q	P7S					L12Q	R13S	D14E	
Position														
Serotype	15	16	17	18	19	21	22	23	24	25	26	27	28	
1		L16H	Q17P			L21Q	L22V				L26I			
2	S15N	H16L	Q17P			L21Q			E24D		I26L	R27Q		
4	Q15N	L16H	P17Q	E18Q			C22V	L23W	M24D	T25L	V26I/L	R27Q	C28W	
6		L16H	Q17P			L21Q	L22V				L26I			
7		L16H	Q17P		R19P	L21Q					V26I/L			
8		L16H	Q17P		R19P	L21Q					I26L			
10		L16H	Q17P		A19P	L21Q					V26I/L			
11	Q15N	I16L/H	P17Q	A18Q			C22V	L23W	Q24D	T25L	L26I	K27Q	C28W	

FIG. 7B